

FIG. 1

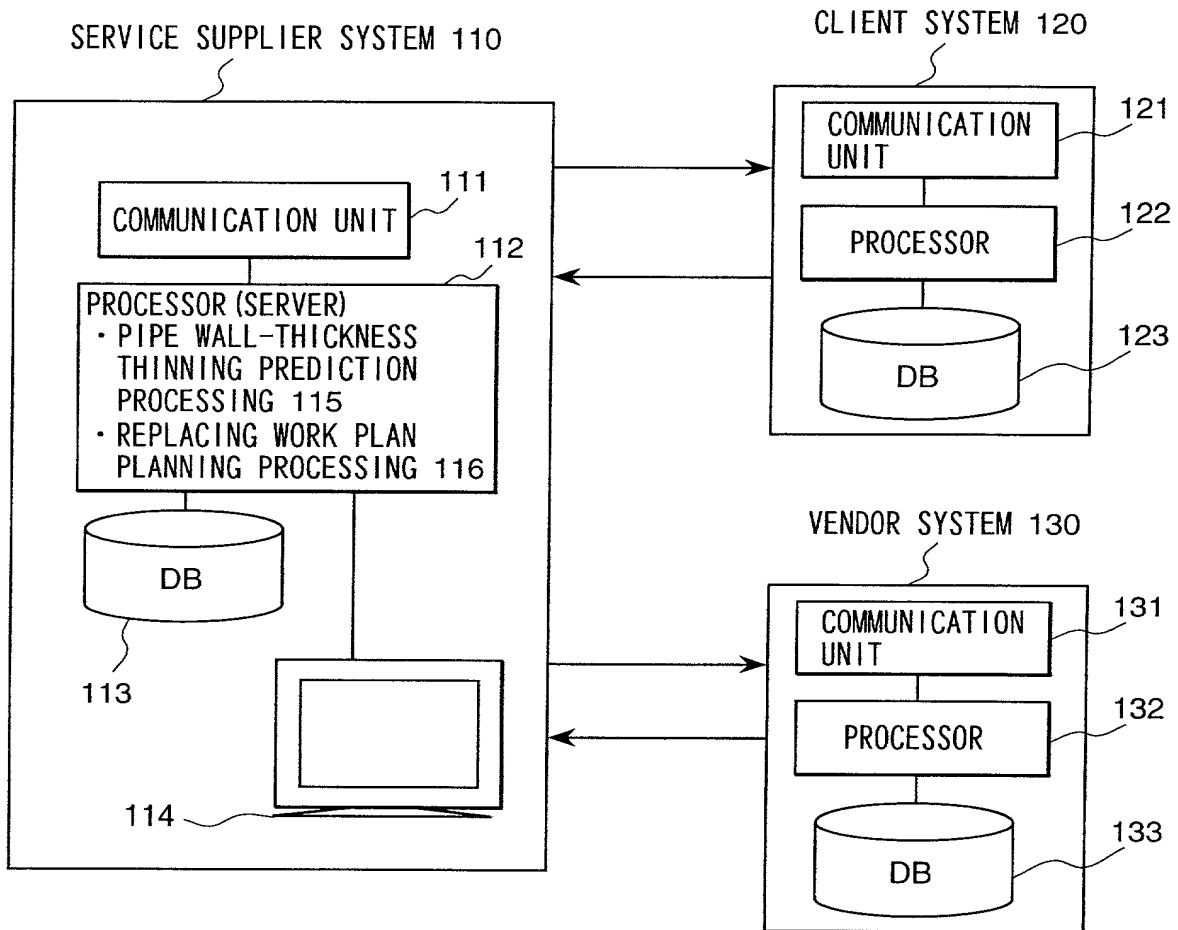


FIG. 2

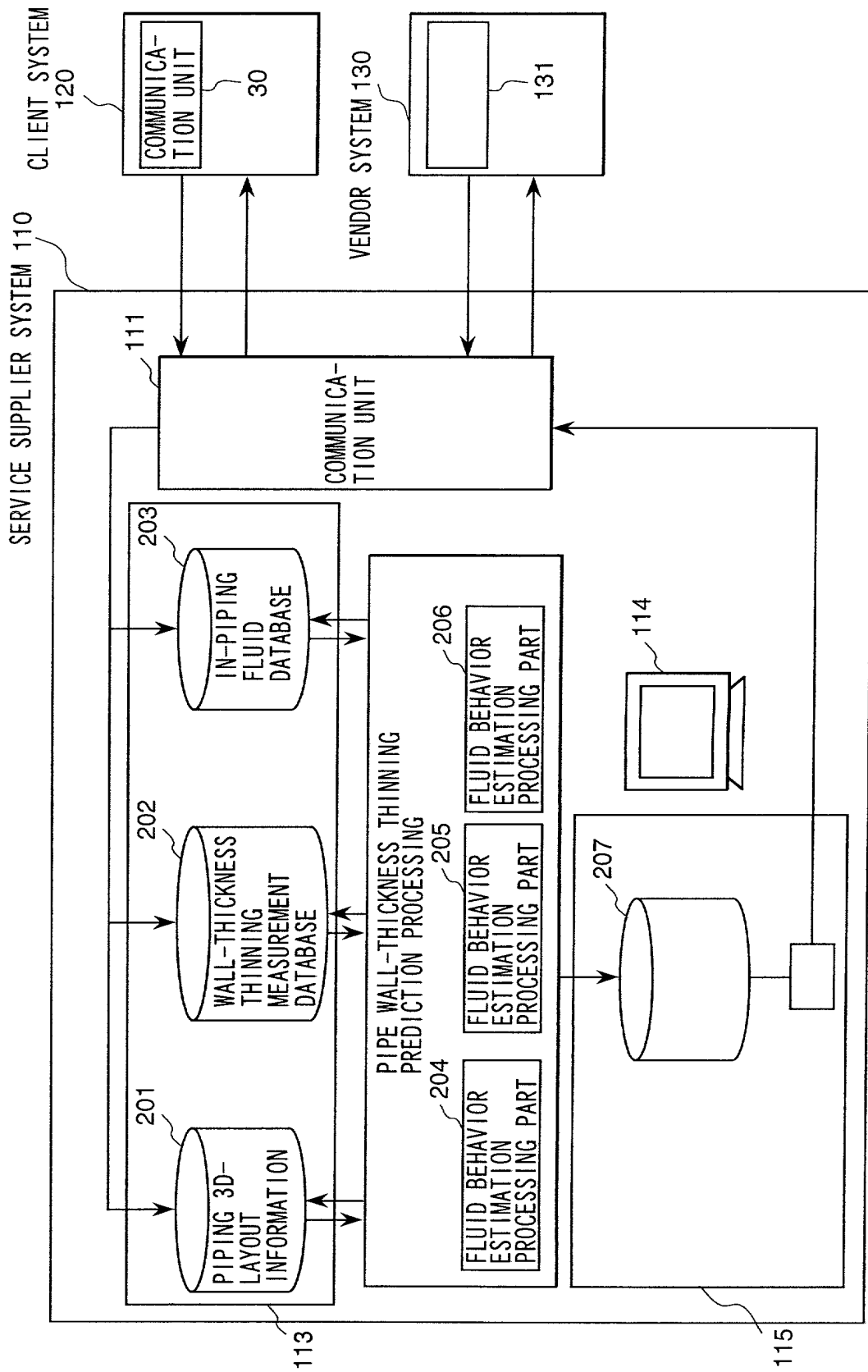


FIG. 3

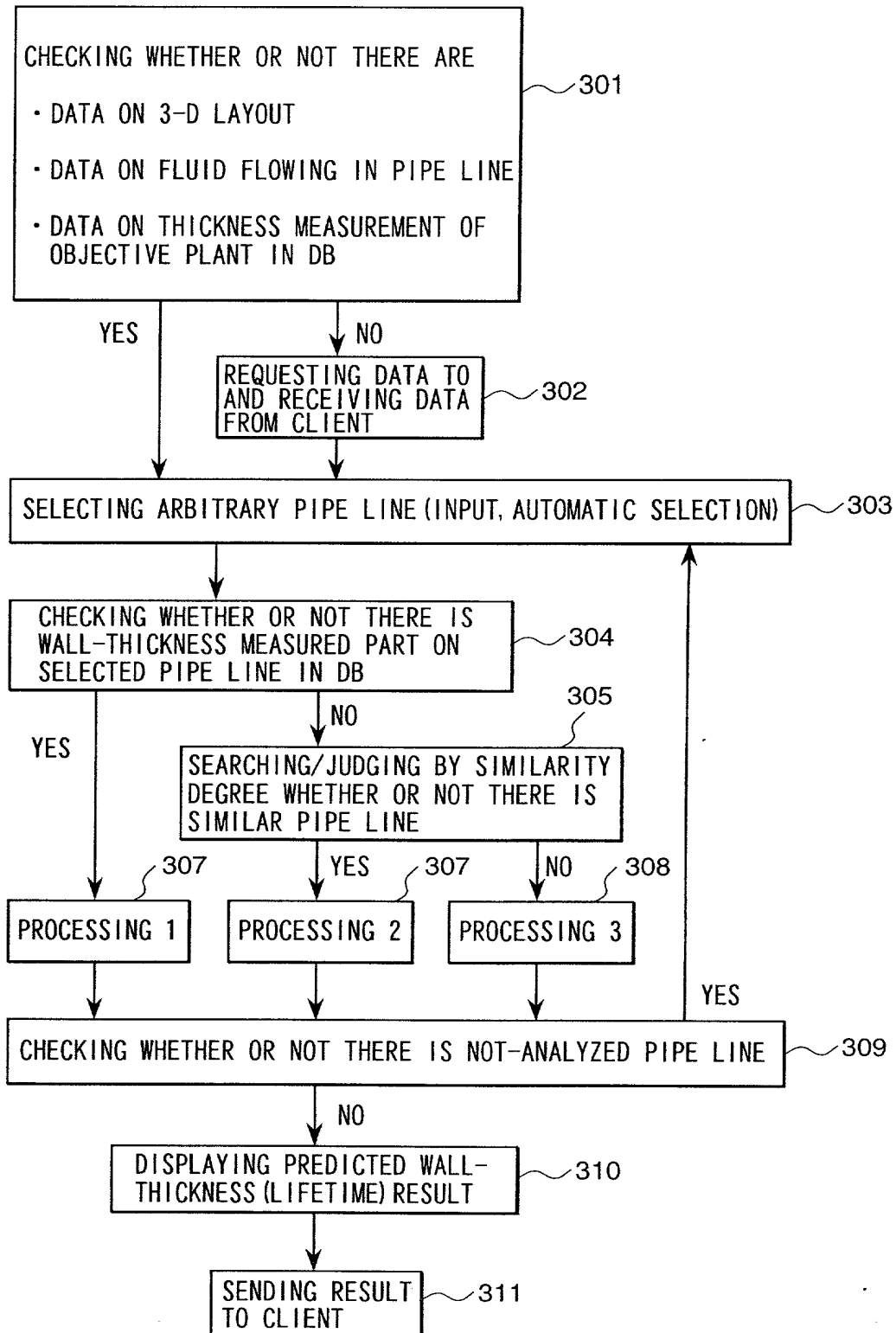


FIG. 4

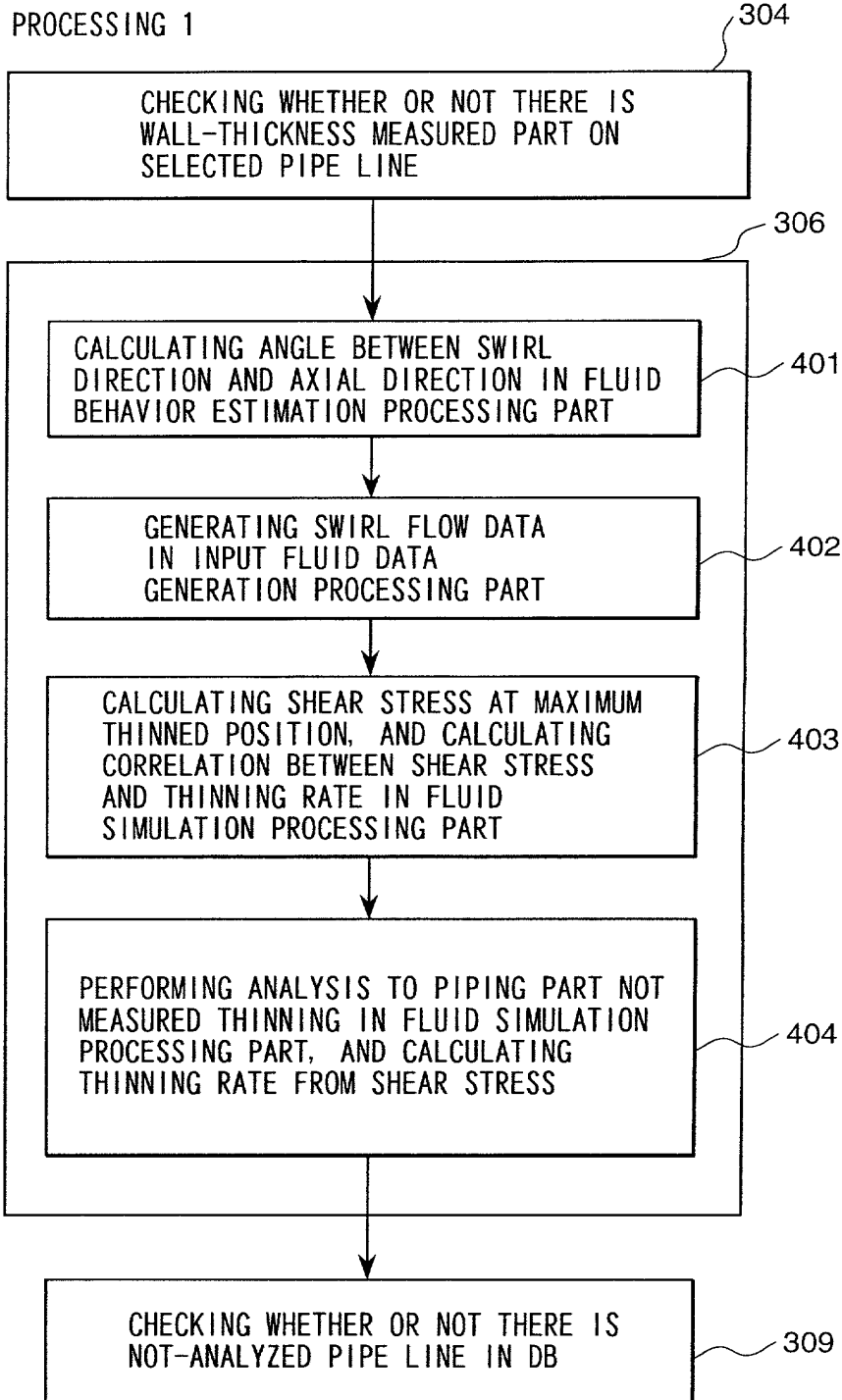


FIG. 5

## PROCESSING 2

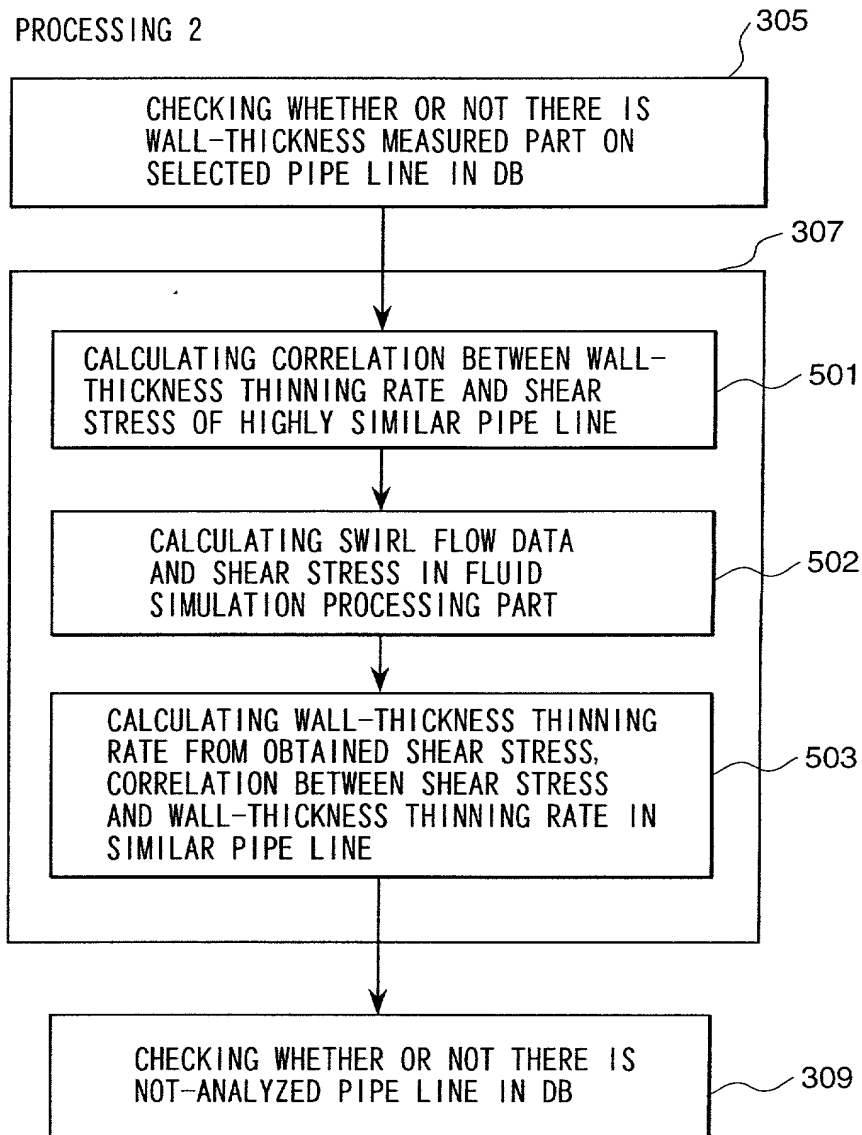


FIG. 6

PROCESSING 3

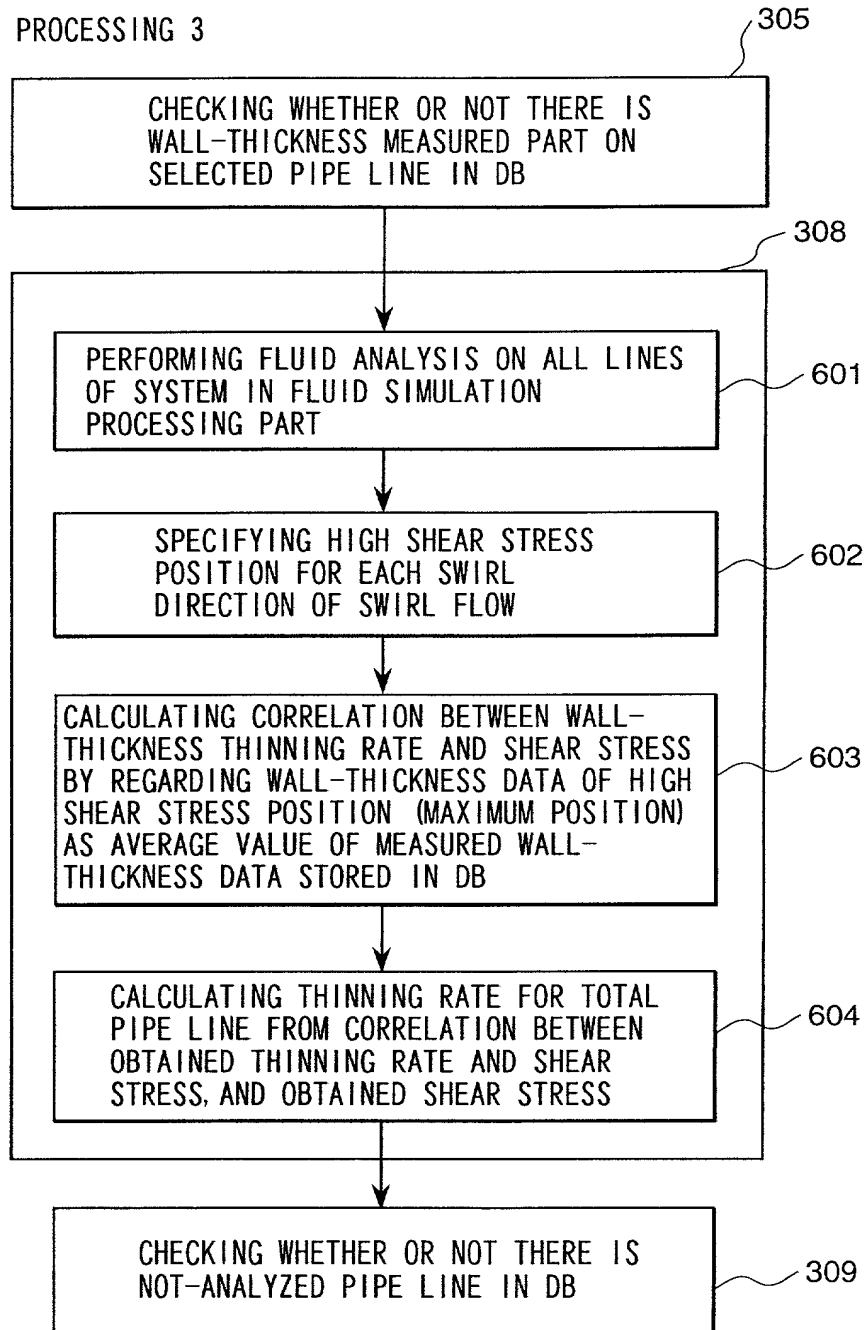


FIG. 7

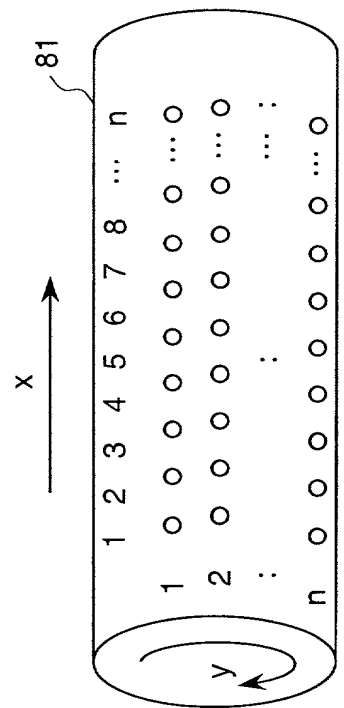
PART ID		POSITIONAL INFORMATION		CONNECTION INFORMATION			
PART ID	KIND OF PART	SHAPE	MATERIAL	...	SYSTEM No.	PIPE-LINE No.	MEASURED WALL-THICKNESS DATA
EQ-001	EQUIPEMENT	BLOCK(30×100×20)	Fe	:			
EQ-002	:	:	:	:			
:	:	:	:	:			
PIPE-001	PIPE	CYL INDR(10×60)	Fe	:			
PIPE-002	:	:	:	:			
:	:	:	:	:			
:	:	:	:	:			

POSITIONAL INFORMATION	
EQUIPEMENT	CENTER COORDINATE (X, Y, Z)
PIPE	END POINT (X <sub>2</sub> , Y <sub>2</sub> , Z <sub>2</sub> ) – STARTING POINT (X <sub>1</sub> , Y <sub>1</sub> , Z <sub>1</sub> )
:	:
:	:

CONNECTION INFORMATION	
EQUIPEMENT	(CONNECTION PART ID), ...
PIPE	(CONNECTION PART ID <sub>1</sub> ), (CONNECTION PART ID <sub>2</sub> ), ...
:	:
:	:

FIG. 8 is a schematic diagram of a cylindrical structure 81 and a corresponding table 82. The cylindrical structure 81 is shown in cross-section along the x-axis, with the y-axis indicating the radial direction. The structure is divided into segments 1, 2, 3, 4, 5, 6, 7, 8, ..., n. Each segment contains a series of small circles representing data points. The table 82 lists the measured wall thickness data for each segment, with columns for the segment ID, the measured wall thickness, and the segment coordinates (x, y).

FIG. 8



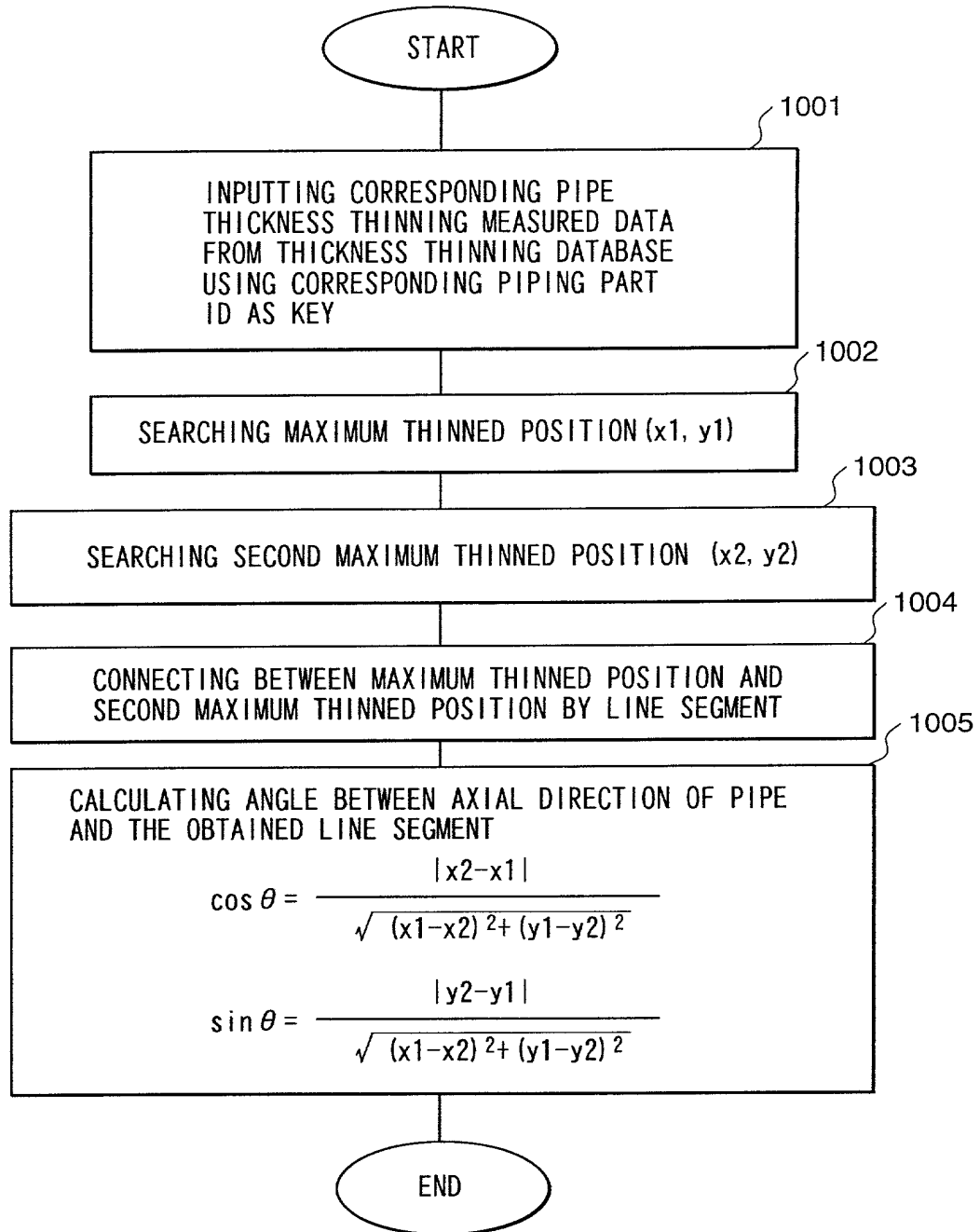
MEASURED WALL- THICKNESS DATA ID	1 (0)	2 (0,5)	3 (1,0)	4 (1,5)	5 (2,0)	...	n (x,y)
1 (0)	3.8	3.9	4.0	4.3	3.8	...	
2 (1,0)	3.9	4.1	3.6	3.8	3.4	...	
3 (2,0)	3.9	4.0	3.7	3.9	4.2	...	
:	:	:	:	:	:		
n (x,y)							

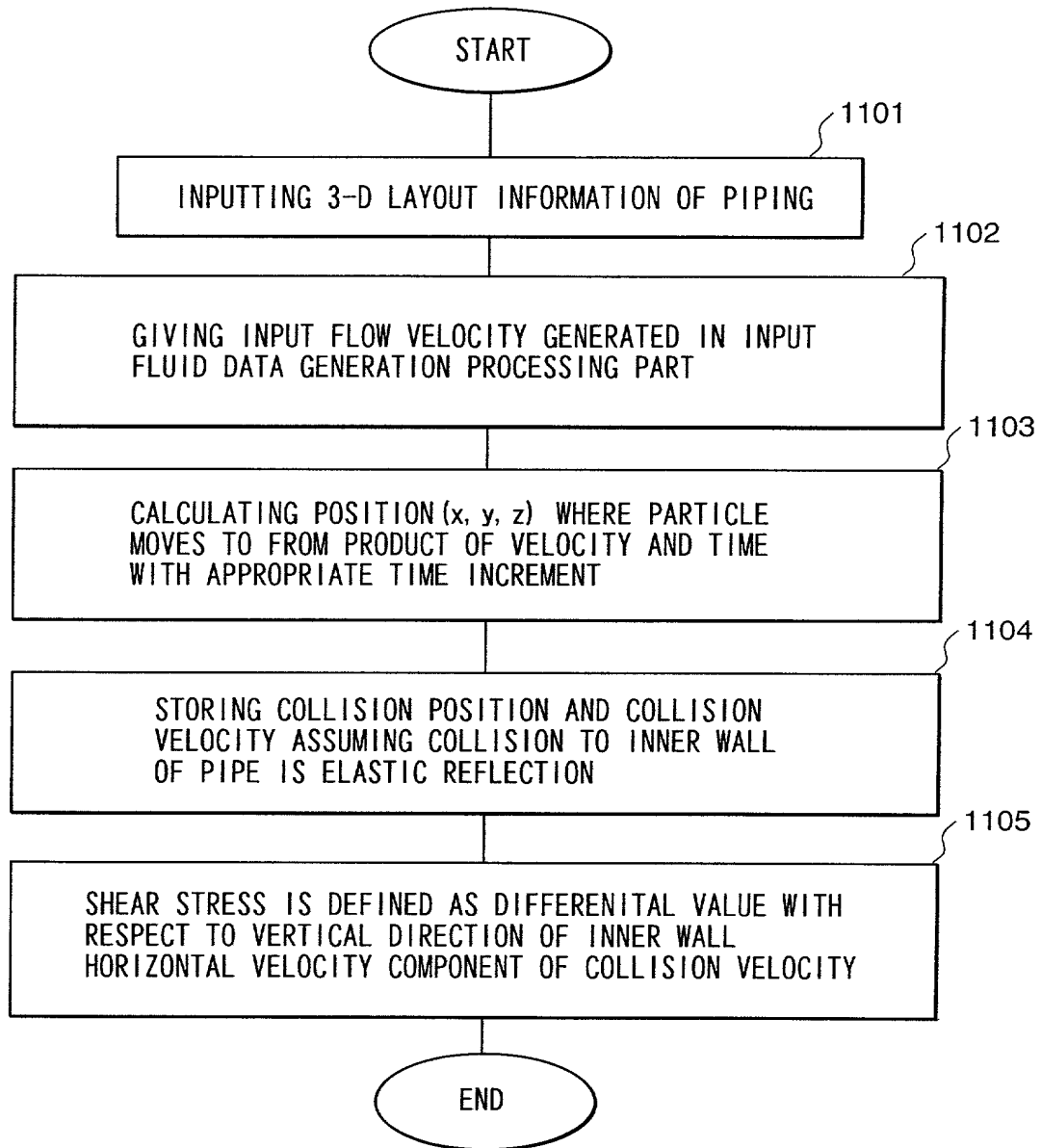


FIG. 9

91

PART ID	FLUID NAME	TEMPERATURE	PRESSURE	DISSOLVED OXYGEN CONCENTRATION	AVERAGE FLOW VELOCITY
PIPE-001	STEAM	170°C	55Pa	10ppb	43 m/s
PIPE-002	LIGHT WATER	66°C	6Pa	3ppb	15 m/s
PIPE-003	LIGHT WATER	30°C	1Pa	1ppb	7 m/s
:	:	:	:	:	:
:	:	:	:	:	:

**FIG. 10**

**FIG. 11**

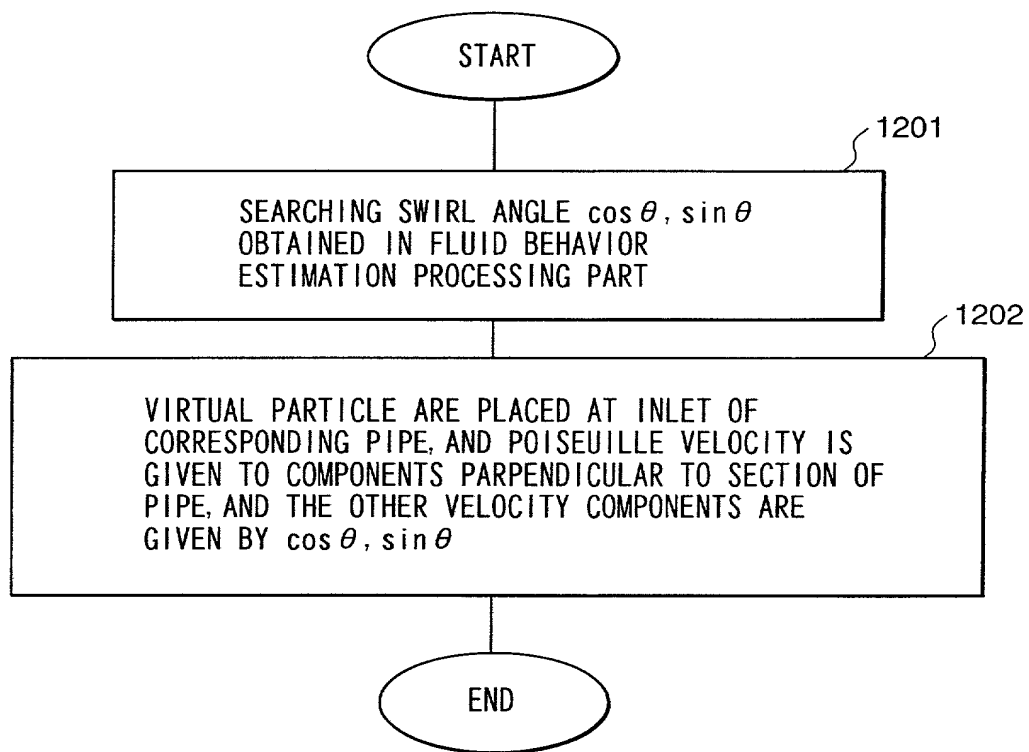
*FIG. 12*

FIG. 13

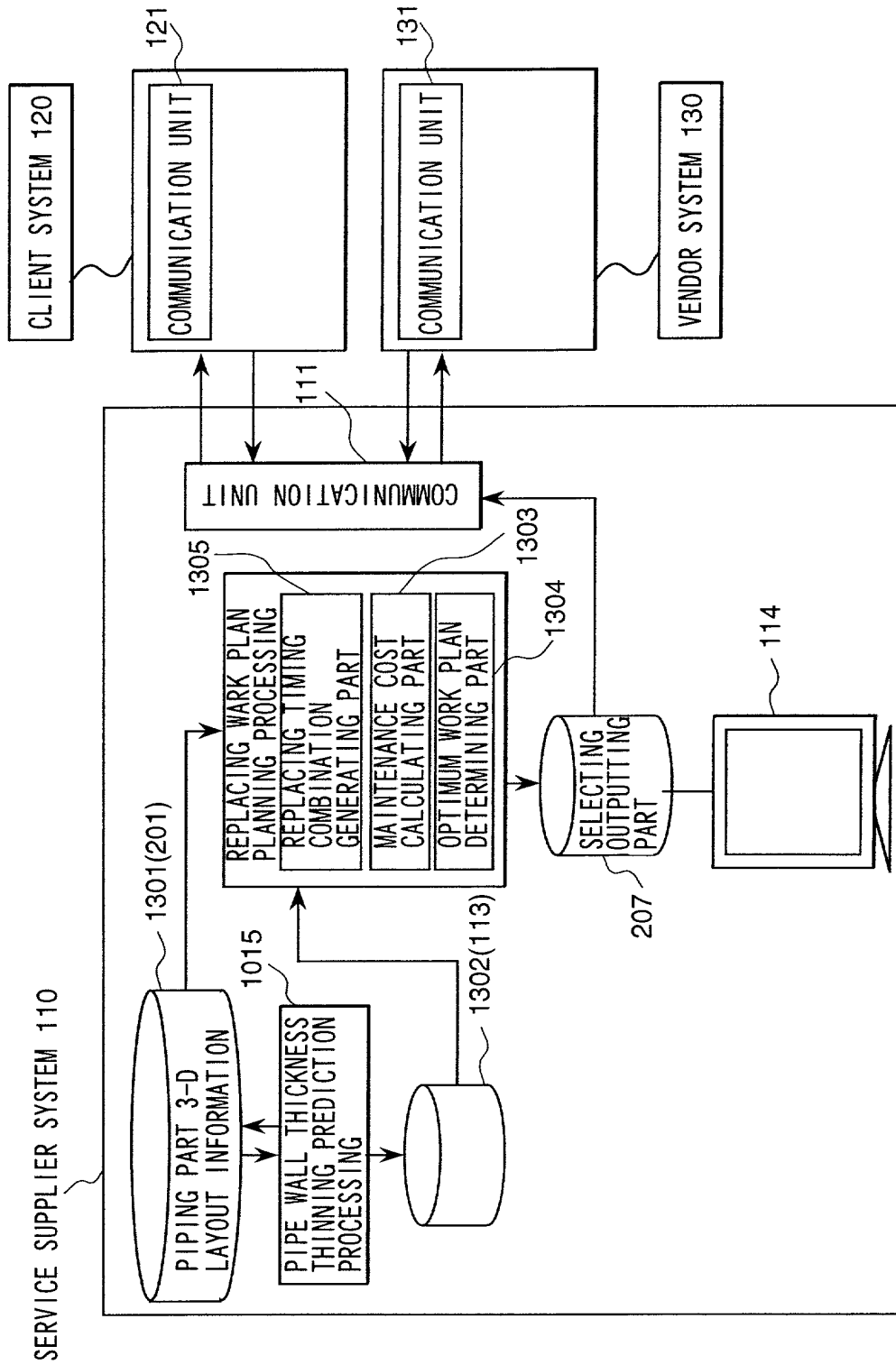


FIG. 14

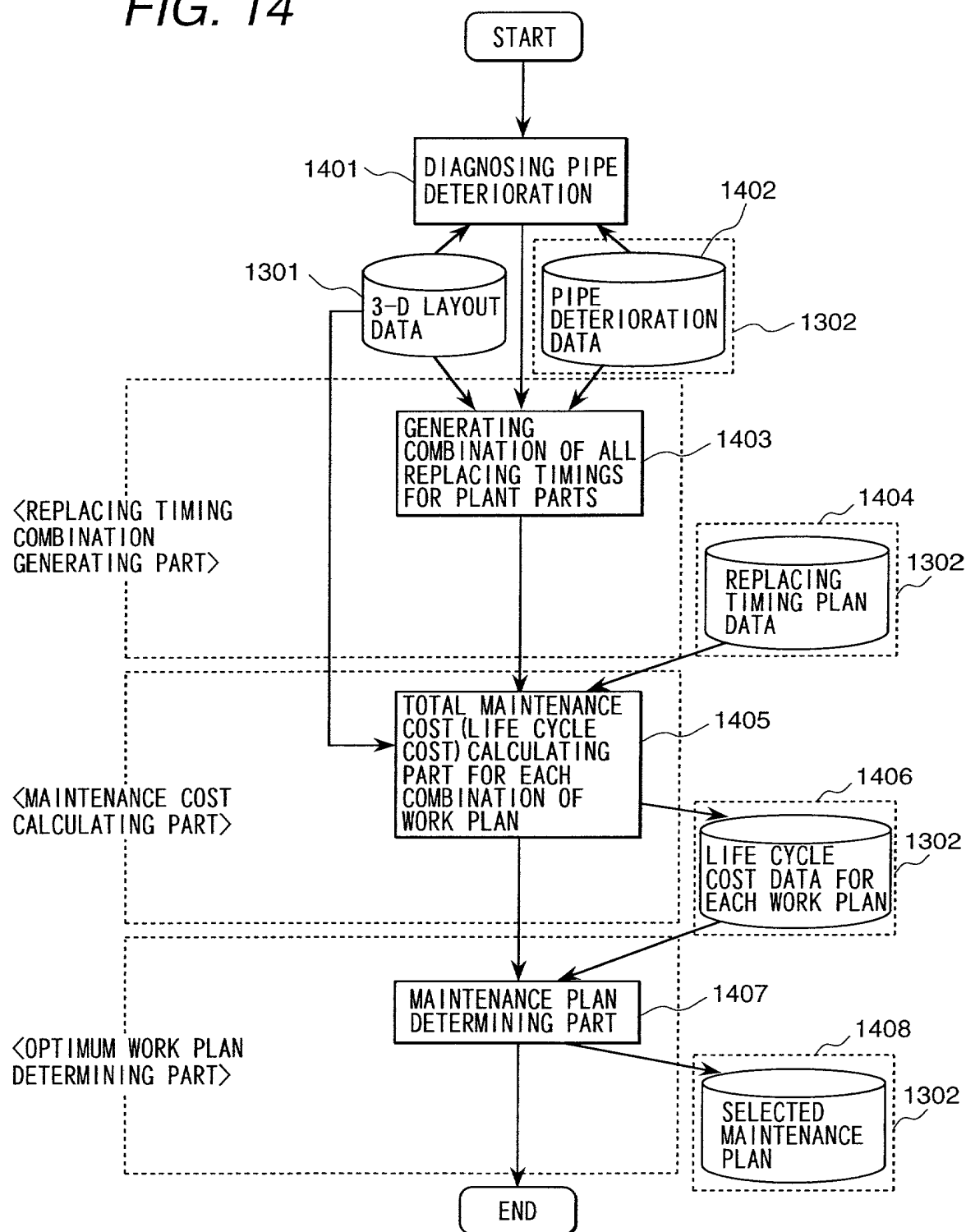


FIG. 15

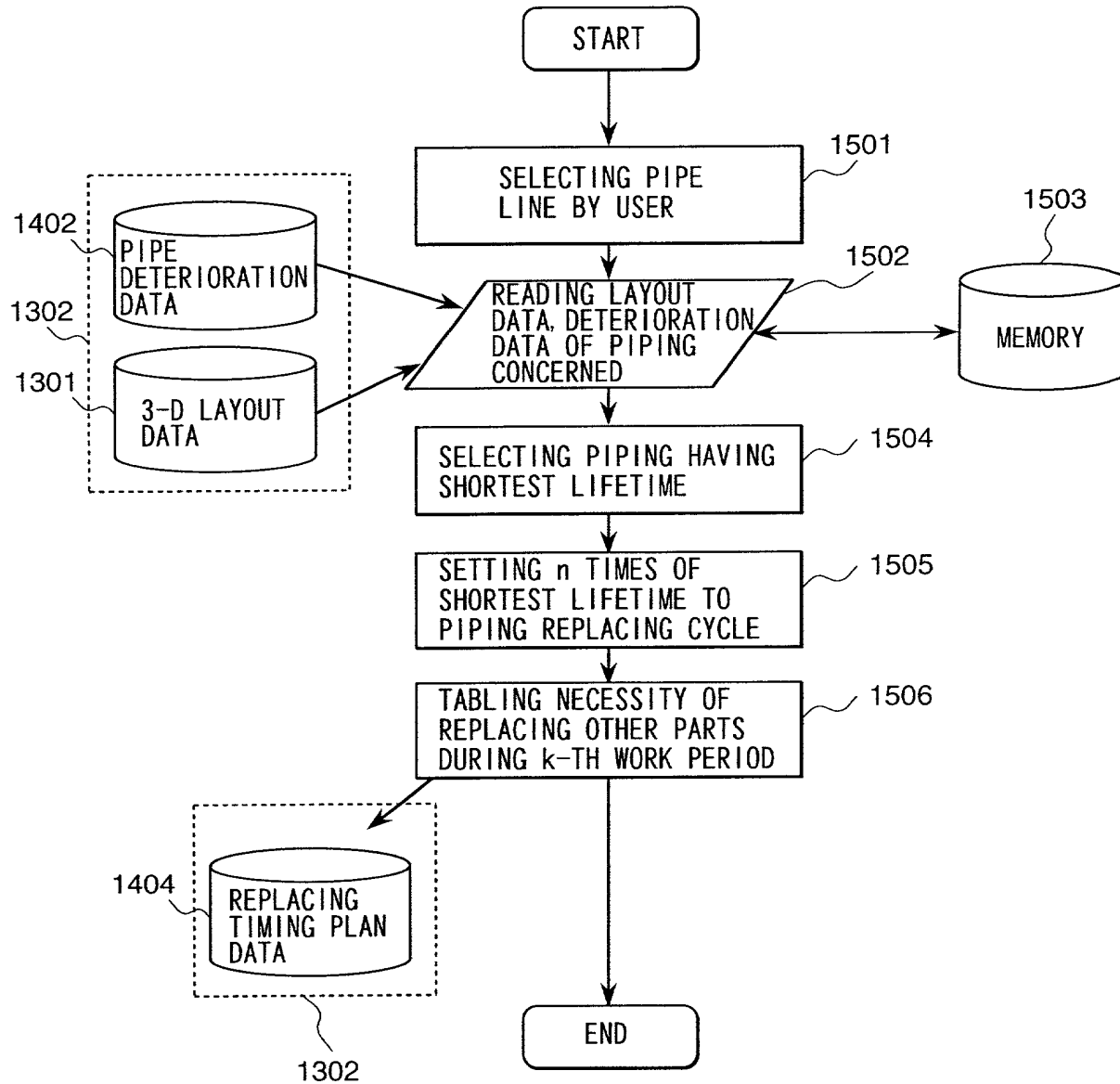


FIG. 16

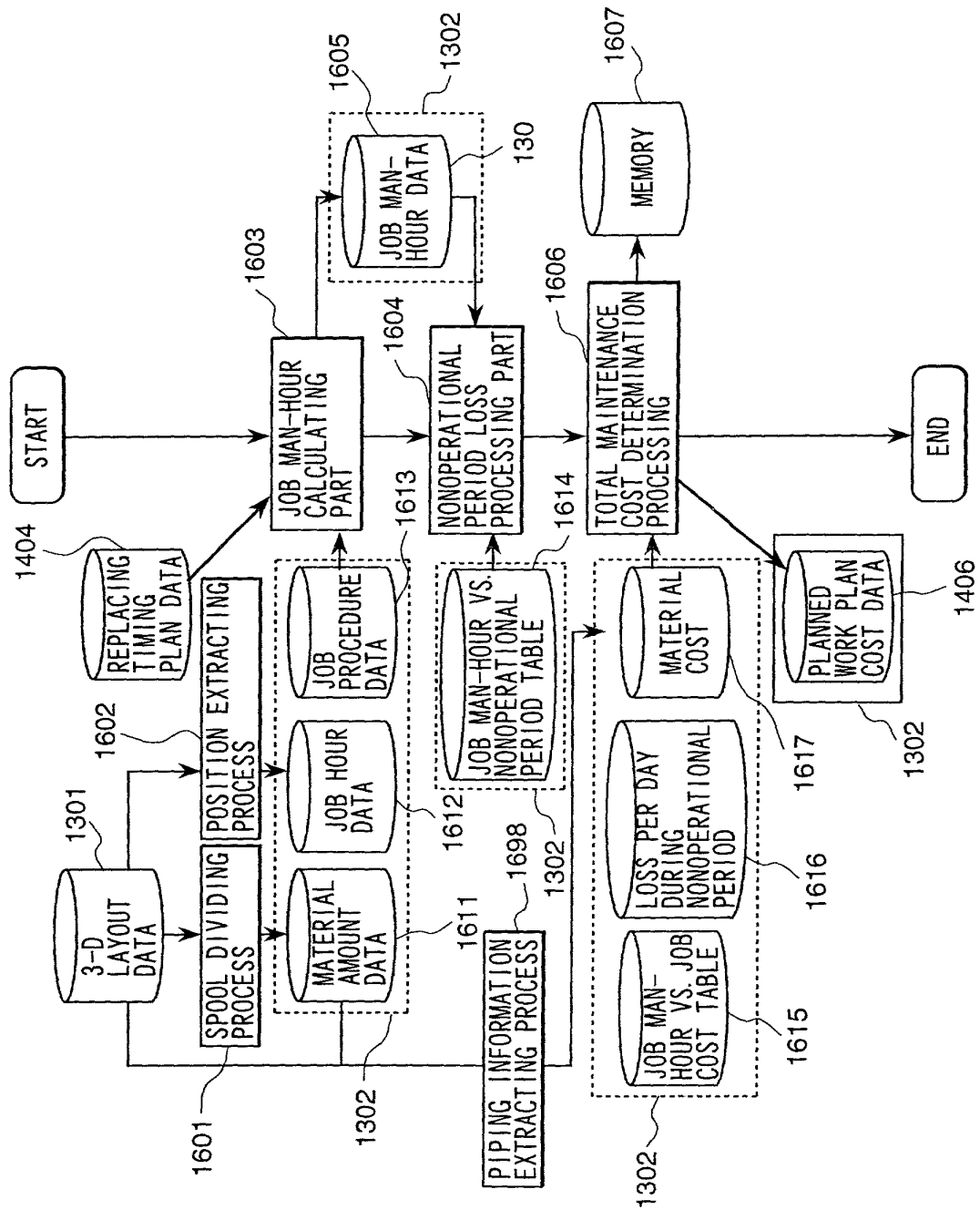




FIG. 17

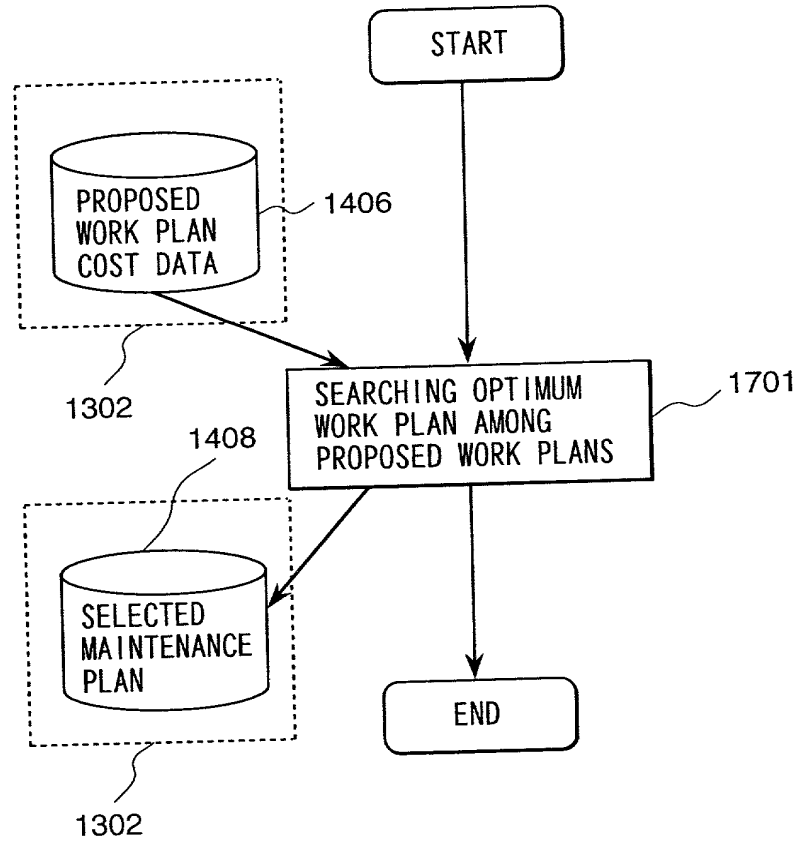




FIG. 19

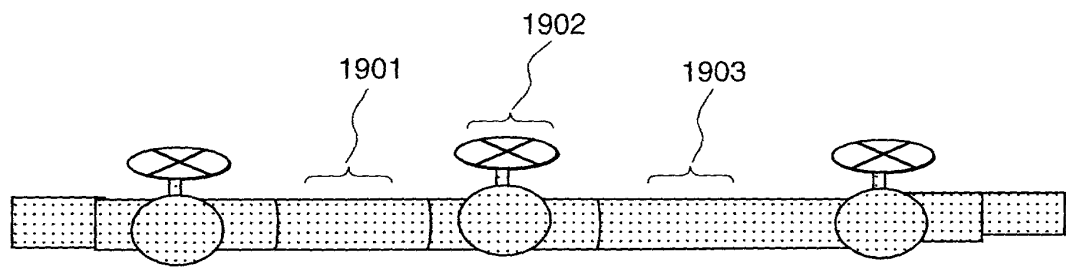


FIG. 21

PIPE ID	LENGTH	REPLACED OBJECT
PIPE-1	1200	1
PIPE-2	2000	1
⋮	⋮	⋮
VAL-1	500	1
VAL-2	550	0
⋮	⋮	⋮

FIG. 20

2001

COMBINATION No.	PIPE ID	0	3	6	9	2002	2003
	VAL-1	1	1	1	1		
1	PIPE-2	1	1	1	1		
	VAL-1	1	1	1	0		
2	PIPE-2	1	1	1	1		
	VAL-1	1	1	1	1		
3	PIPE-2	1	1	1	0		
	VAL-1	1	1	1	0		
4	PIPE-2	1	1	1	0		
	VAL-1	1	1	1	1		
5	PIPE-2	1	1	0	1		
	VAL-1	1	1	1	0		
6	PIPE-2	1	1	0	1		
	VAL-1	1	1	1	1		
7	PIPE-2	1	1	0	0		
	VAL-1	1	1	1	0		
8	PIPE-2	1	1	0	0		
	VAL-1	1	1	1	1		
9	PIPE-2	1	0	1	1		
	VAL-1	1	1	1	0		
10	PIPE-2	1	0	1	1		
	VAL-1	1	1	1	1		
11	PIPE-2	1	0	1	0		
	VAL-1	1	1	1	0		
12	PIPE-2	1	0	1	0		
	VAL-1	1	1	1	1		
13	PIPE-2	1	0	0	1		

FIG. 22

	SCAFFOLD	.....	DECONTAMINATION	.....	CUTTING	.....	DISPOSITION	.....
	SETTING -UP	.....	REMOVING INSULATOR INJECTING DECONTAMINANT	.....	FIXING CUTTING PIPE PIPE	.....	CARRYING -OUT	.....
JOB HOURS	15	.....	8	13	11	10	3	.....

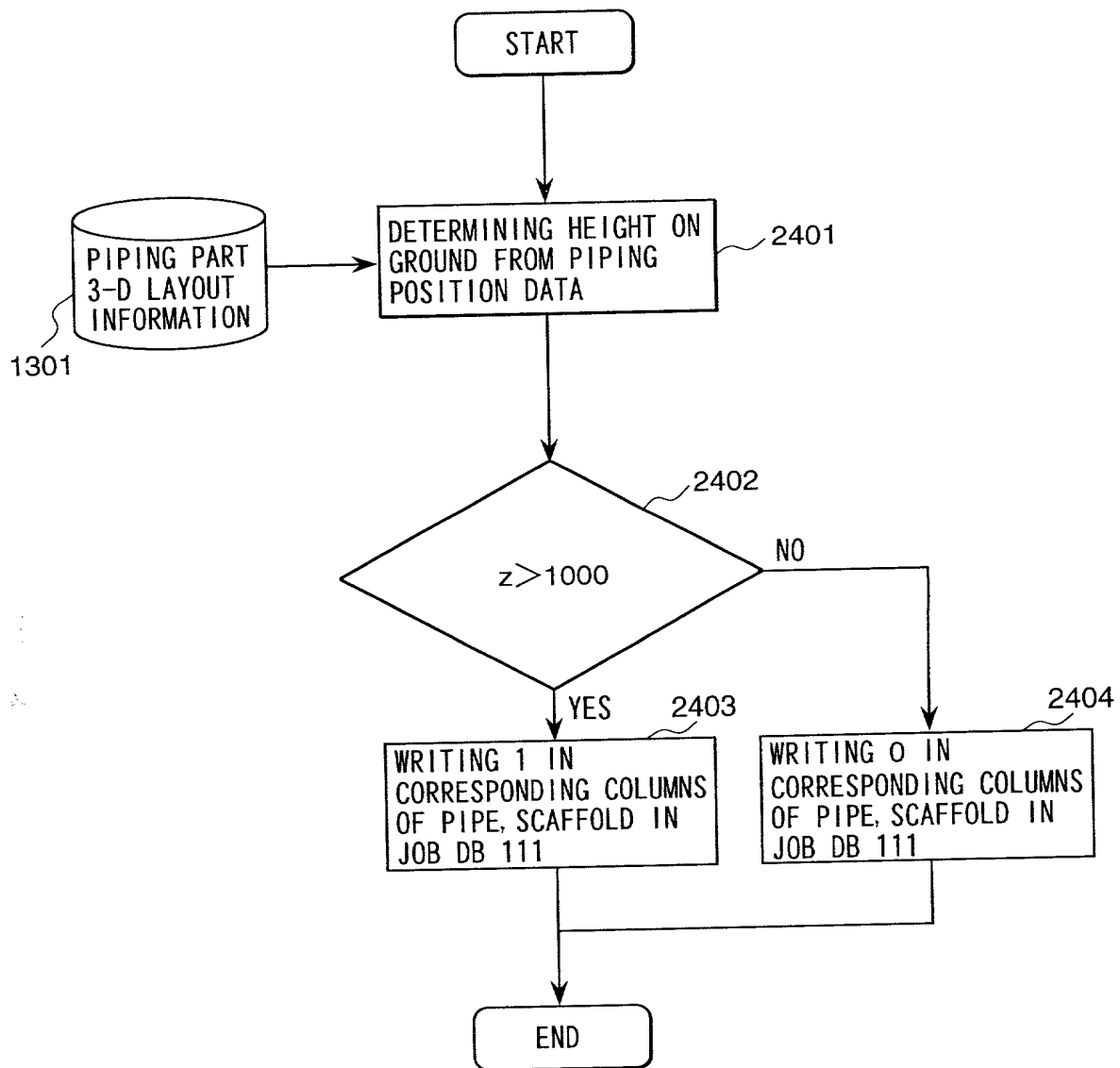
.....	INSTALLING	.....	WELDING	.....	PAINTING	.....
	PLACING PIPE	.....	BUTTING	.....	CLEANING	.....
	12	.....	13	.....	2	.....

FIG. 23

	SCAFFOLD		DECONTAMINATION		CUTTING		DISPOSITION	
	SETTING -UP	.....	REMOVING INSULATOR	INJECTING DECONTAMINANT	.....	FIXING/CUTTING PIPE	CARRYING -OUT	.....
PIPE-1	1	.....	1	1	.....	1	1	.....
PIPE-2	1	.....	1	1	.....	1	1	.....
VAL-1	1	.....	0	1	.....	1	1	.....
VAL-2	0	.....	0	0	.....	1	1	.....

	INSTALLING		WELDING		PAINTING	
	PLACING PIPE	.....	BUTTING	.....	CLEANING	.....
	1	.....	1	.....	1	.....
	1	.....	1	.....	1	.....
	1	.....	1	.....	1	.....
	1	.....	1	.....	1	.....

FIG. 24









**JOB MAN-  
HOURS**

[illegible]

FIG. 28

2801

PART ID	KIND OF PART	SHAPE	MATERIAL	...	WALL THICKNESS	LENGTH	UNIT PRICE
PIPE-001	PIPE	CYLINDER (10×60)	SCPG				100
PIPE-002	PIPE	CYLINDER (10×60)	STPT				150
...	...	...	...				...
VAL-001	VALVE	CYLINDER (10×60)	SCPH				300

FIG. 29

	SCAFFOLD		DECONTAMINATION		CUTTING		DISPOSITION	
	SETTING -UP	.....	REMOVING INSULATOR	INJECTING DECONTAMINANT	.....	FIXING CUTTING PIPE	CARRYING -OUT	.....
PIPE-1	6	.....	5	24	.....	5	15	.....
PIPE-2	6	.....	8	0	.....	5	0	.....
VAL-1	6	.....	0	0	.....	12	0	.....
TOTAL	18	.....	13	24	.....	22	15	.....

2901

28 / 34

.....	INSTALLING		WELDING		PAINTING		TOTAL MAN-HOUR
	PLACING PIPE	.....	BUTTING	.....	CLEANING	.....	
	10	.....	15	.....	5	.....	.....
	10	.....	15	.....	5	.....	.....
		.....		.....		.....	.....
		.....		.....		.....	.....
	12	.....	15	.....	5	.....	.....
TOTAL	32	.....	45	.....	16	.....	.....

2901

2904

2903

2902

TOTAL JOB MAN-HOUR BY COMBINING PIPES	
--	--

TOTAL OMISSIBLE MAN-HOURS	35
------------------------------	----

**FIG. 30**

WARK PLAN No.	LOSS OF POWER
1	24000
2	21000
3	21000
4	18000
5	19000
6	18000
:	:
:	:

**FIG. 31**

PIPE ID	TOTAL MATERIAL COST
1	800
2	1200
3	2400
:	:
:	:
:	:
	4400

FIG. 32

COMBINATION No.	PIPE ID	0	3	6	9	Cost (10 THOUSANDS YEN)
1	PIPE-2	1	1	1	1	35,800
	VAL-1	1	1	1	1	
2	PIPE-2	1	1	1	0	34,510
	VAL-1	1	1	1	1	
3	PIPE-2	1	1	1	1	34,360
	VAL-1	1	1	1	0	
4	PIPE-2	1	1	1	1	31,830
	VAL-1	1	1	1	1	
5	PIPE-2	1	1	1	1	34,360
	VAL-1	1	1	0	1	
6	PIPE-2	1	1	1	0	33,070
	VAL-1	1	1	0	1	
7	PIPE-2	1	1	1	1	32,920
	VAL-1	1	1	0	0	
8	PIPE-2	1	1	1	0	31,630
	VAL-1	1	1	0	0	
9	PIPE-2	1	1	1	1	34,360
	VAL-1	1	0	1	1	
10	PIPE-2	1	1	1	0	33,070
	VAL-1	1	0	1	1	
11	PIPE-2	1	1	1	1	32,920
	VAL-1	1	0	1	0	
12	PIPE-2	1	1	1	0	31,630
	VAL-1	1	0	1	0	
13	PIPE-2	1	1	1	1	32,920
	VAL-1	1	0	0	1	

3202

FIG. 33

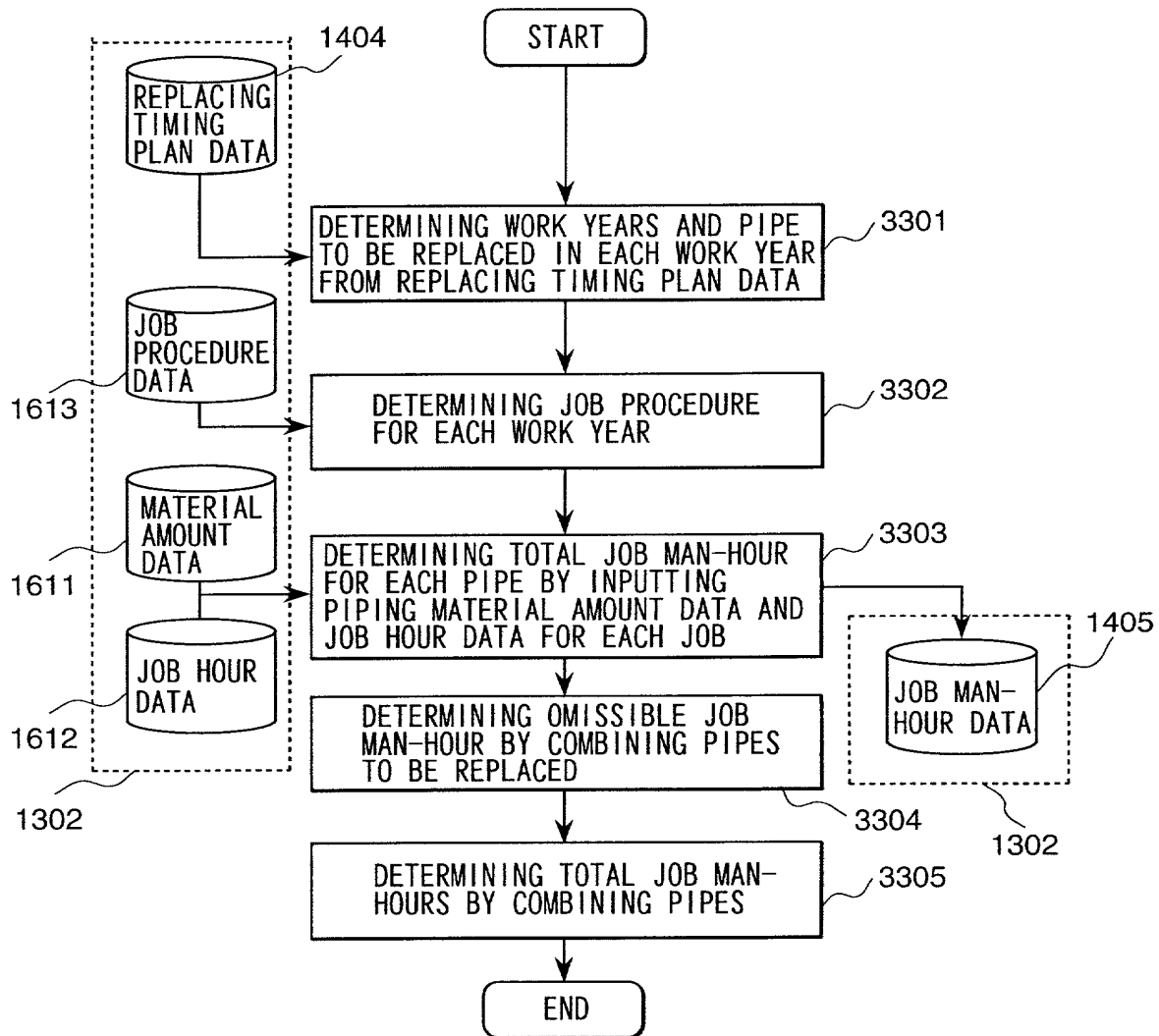


FIG. 34

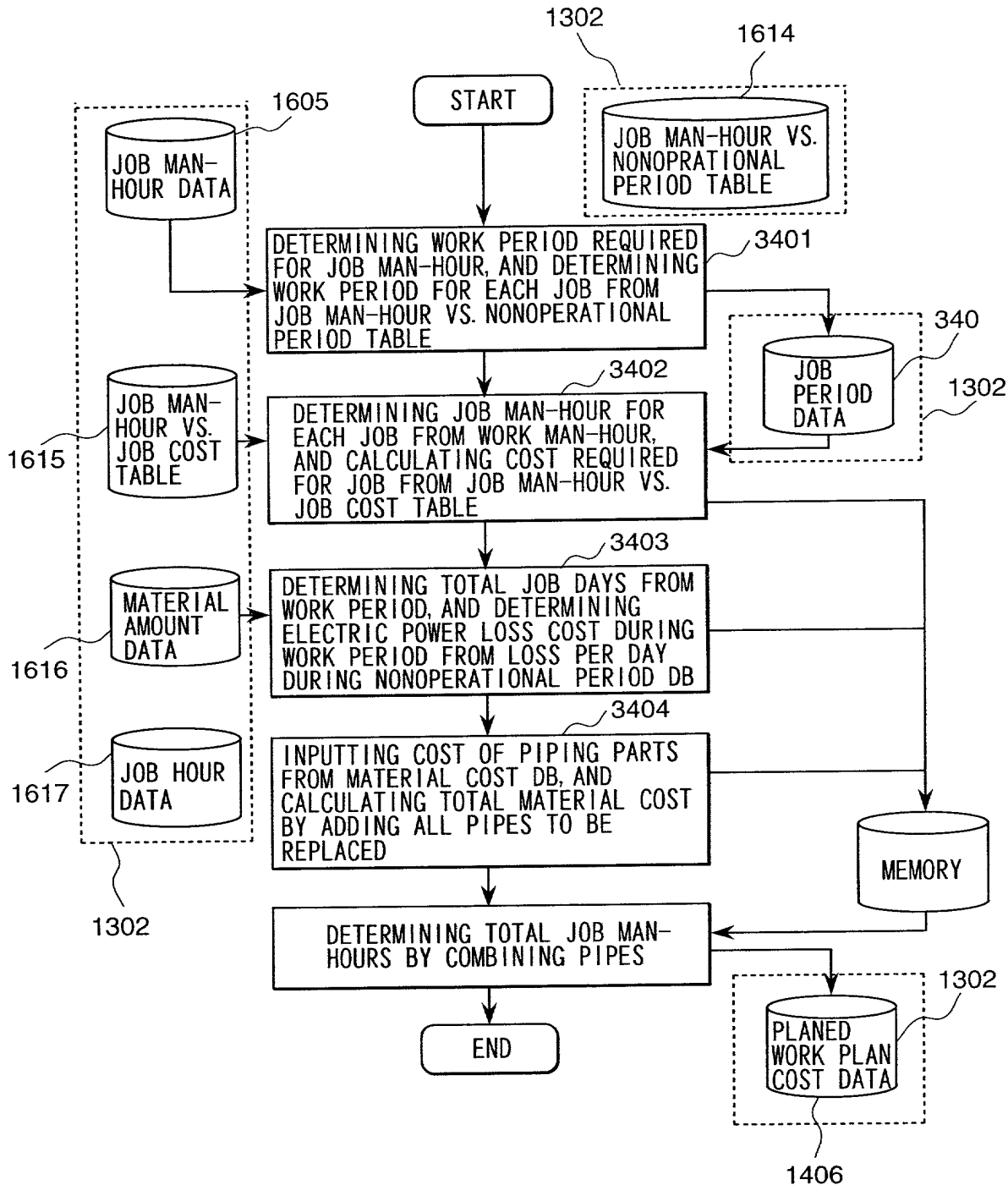




FIG. 35

3501

	SCAFFOLD	.....	DECONTAMINATION	.....	CUTTING	.....	DISPOSITION	.....
	SETTING -UP	.....	REMOVING INSULATOR DECONTAMINANT	.....	FIXING CUTTING PIPE PIPE	.....	CARRYING -OUT	.....
JOB HOURS	5	.....	5	0	5	5	7	.....

3502

.....	INSTALLING	.....	WELDING	.....	PAINTING	.....	TOTAL MAN-HOUR
	PLACING PIPE	.....	BUTTING	.....	CLEANING	.....	
	5	.....	12	.....	5	.....	0

NUMBER OF OMISSIBLE SECTIONS S
0

FIG. 36

